

**Before the  
Federal Communications Commission  
Washington, DC 20554**

**In the Matter of**

<b>Digital Audio Broadcasting Systems and )</b>	
<b>Their Impact on the Terrestrial Radio )</b>	<b>MM Docket No. 99-325</b>
<b>Broadcast Service )</b>	

**To the Commission:**

**Comments from Nickolaus E. Leggett  
N3NL Amateur Radio Operator**

The following are formal comments from Nickolaus E. Leggett, an amateur radio operator (Extra Class licensee – call sign N3NL), inventor (U.S. Patents # 3,280,929 and 3,280,930 and one electronics invention patent application pending), and a certified electronics technician (ISCET and NARTE). I also have a Master of Arts degree in Political Science from the Johns Hopkins University (May 1970).

**Mandatory Conversion to Digital and America's Poor People**

My comments are directed at the Commission's question: "*We ask whether the government, the marketplace, or both, should determine the speed of conversion from analog to hybrid, and eventually, to digital radio service, at this time.*" (Paragraph 17 Page 8 of the Further Notice of Proposed Rulemaking and Notice of Inquiry)

My response is that any mandatory conversion to all digital radio broadcasting must consider the special needs of low income and very poor Americans. For decades radio broadcasting has provided an important link between poor neighborhoods and the wider American culture. This link has been provided by the very inexpensive "transistor radios" that are so inexpensive that they can be purchased by residents of the barrios and

ghettos throughout urban America. Also, many poor people use very old table radios dating back many years to listen to radio broadcasts.

### **Broadcast Radio Services**

Broadcast radio has provided a link between these rather isolated communities and the larger communities surrounding them. This link has included the broadcasting of ethnic entertainment and commentary as well as news items. In addition, entertainment from other cultures and areas is available along with the directly educational broadcasts of National Public Radio. Extensive coverage of sporting events helps to create a common bond throughout America including people of virtually all incomes.

All of this service is currently available on simple AM and FM radios that are widely affordable.

### **Digital Radios and a Threshold for Conversion**

In contrast, all digital radios are currently expensive. They are so expensive that poor people cannot afford to own them. As a result, poor people could not listen to all-digital radio broadcasting. They would be cut off from this major source of cultural connection and they could not even use their old radios to hear radio broadcasts.

No one wants such a cultural divide to increase in America. Instead, we want the poor and low-income people to be connected to the general American culture and to be motivated to work their way into successful roles in America.

Therefore, I suggest that digital radio receivers equivalent to the cheap transistor radio must be extensively marketed in America before the Commission requires any radio broadcast station to convert to all-digital service. These inexpensive digital radios must be priced at no more than ten (10) dollars each retail in 2004 dollars. At least three

vendors, domestic and/or importers must be selling these radios in several major urban markets in the United States. When this explicit threshold is achieved, then the Commission can consider requiring domestic radio broadcasting to be all digital.

### **Political and Social Consequences of Not Having a Threshold**

Failure to observe this threshold would have highly negative political and social consequences. Many people would be highly resentful of the fact that their existing radios would no longer function. Many poor people would view the conversion to digital as a class-based move that would encourage them to embrace leftist and extremist political views. Indeed, many poor people would wind up in a situation where AM broadcasting from Cuba would be the only viable listening option remaining. Wouldn't that cause some interesting social changes in America's inner cities?

In addition, the middle class would also be impacted by premature mandatory conversion to all digital radio broadcasting. No one is going to want to throw away her nice analog high-fidelity tuner or stop using his existing car radio.

### **Aspects of Conversion to Digital Radio**

When the threshold of available digital radios is achieved, the Commission should allow the broadcasters at least five years to convert from hybrid (analog and digital) transmission to all-digital transmission. This would reduce the economic impact on both the broadcasters and the listeners themselves who would have to buy new equipment.

Also, we probably want to leave some room in the radio broadcasting market for conventional analog transmissions to old and classic radios. There are a lot of people who like to collect and use classic radios such as the old vacuum tube sets from the 1930s, 1940s, and 1950s. Some high fidelity enthusiasts prefer analog systems. If some

radio broadcasters can make money from serving such an antique market, let them do it. We are, after all, a market-driven economy. Also, this loophole for analog radio broadcasting would be helpful for low power FM (LPFM) and possible future LPAM broadcasters who may have difficulty affording all-digital equipment.

### **Suggested Actions**

The Commission should be very cautious in considering any mandatory transition to all-digital radio broadcasting service. The Commission should seriously consider maintaining some set-aside broadcasting channels for analog transmissions. These analog channels could service neighborhoods through low power FM (LPFM) and new low power AM (LPAM) broadcasting. Also, the analog channels could support the operation of traditional analog radios and high fidelity equipment well into the next century.

**Respectfully submitted,**

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